

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 C12N15/864 A61K48/00 C07K14/015

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C12N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE, CHEM ABS Data, EMBL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 1 310 571 A (TRUSTEES OF THE UNIVERSITY OF) 14 May 2003 (2003-05-14)      figure 2      page 3, line 6 – line 19      paragraphs '0075!, '0077!, '0079!      paragraph '0126!      paragraphs '0132! – '0138!      paragraphs '0176! – '0183!      tables 8,9      &amp; US 2003/138772 A1 (ALVIRA MAURICIO R ET AL) 24 July 2003 (2003-07-24)      cited in the application</p> <p>-----</p> <p style="text-align: center;">-/--</p>	1-7

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search

22 March 2005

Date of mailing of the International search report

18.05.2005

Name and mailing address of the ISA

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Mandl, B

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GAO GUANGPING ET AL: "Adeno-associated viruses undergo substantial evolution in primates during natural infections" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, vol. 100, no. 10, 13 May 2003 (2003-05-13), pages 6081-6086, XP002255703 ISSN: 0027-8424 the whole document -----	1-7
A	GAO G-P ET AL: "Novel adeno-associated viruses from rhesus monkeys as vectors for human gene therapy" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, vol. 99, no. 18, 3 September 2002 (2002-09-03), pages 11854-11859, XP002229849 ISSN: 0027-8424 cited in the application the whole document -----	1-7
A	GRIMM D ET AL: "FROM VIRUS EVOLUTION TO VECTOR REVOLUTION: USE OF NATURALLY OCCURRING SEROTYPES OF ADENO-ASSOCIATED VIRUS (AAV) AS NOVEL VECTORS FOR HUMAN GENE THERAPY" CURRENT GENE THERAPY, vol. 3, no. 4, August 2003 (2003-08), pages 281-304, XP009040225 ISSN: 1566-5232 figure 3 -----	1-7
A	RUTLEDGE E A ET AL: "INFECTIOUS CLONES AND VECTORS DERIVED FROM ADENO-ASSOCIATED VIRUS (AAV) SEROTYPES OTHER THAN AAV TYPE 2" JOURNAL OF VIROLOGY, vol. 72, January 1998 (1998-01), pages 309-319, XP002924102 ISSN: 0022-538X the whole document -----	1-7
A	RABINOWITZ JOSEPH E ET AL: "Cross-packaging of a single adeno-associated virus (AAV) type 2 vector genome into multiple AAV serotypes enables transduction with broad specificity" JOURNAL OF VIROLOGY, vol. 76, no. 2, January 2002 (2002-01), pages 791-801, XP002247245 ISSN: 0022-538X the whole document -----	1-7
	-/-	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/052052 A (TRUSTEES OF THE UNIVERSITY OF ; GAO GUANGPING (US); ALVIRA MAURICIO (U) 26 June 2003 (2003-06-26) the whole document -----	28-45
P,X	GAO GUANGPING ET AL: "Clades of adeno-associated viruses are widely disseminated in human tissues" JOURNAL OF VIROLOGY, vol. 78, no. 12, June 2004 (2004-06), pages 6381-6388, XP002321999 ISSN: 0022-538X the whole document -----	28-45

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/028817

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  

Although claim 45 comprises a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  

1-4(partially), 5-7(completely), 28-29(partially), 30-45(completely)
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4 (partially), 5-7 (completely)

Subject-matter relating to AAV clade E.  
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2. claims: 1-4 (partially), 10, 11 (completely)

Subject-matter relating to AAV clade D.  
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3. claims: 1-4 (partially), 14, 15 (completely)

Subject-matter relating to AAV clade B.  
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4. claims: 1-4 (partially), 18, 19 (completely)

Subject-matter relating to AAV clade A.  
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5. claims: 1-4 (partially), 22, 23 (completely)

Subject-matter relating to AAV clade C.  
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6. claims: 1-4 (partially), 26, 27 (completely)

Subject-matter relating to AAV clade F.  
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7. claims: 1-4 (partially)

Subject-matter relating to AAV clades not covered by  
inventions 1-6.  
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Inventions 8-34: Claims 8, 9, 46-58 (all partially)

Subject-matter relating to the AAVs as defined in claim 9,  
i.e. 30.10/pi.1 or 30.12/pi.2 or 30.19.pi.3 ... or hu.66 or  
modified rh.2 or hu.67, respectively.  
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Invention 35-41: Claims 12, 13, 46-58 (all partially)

Subject-matter relating to the AAVs as defined in claim 13,  
i.e. 2-15/rh.62 or 1-7/rh.48 or 4-9/rh.54 or 4-19/rh.55 or  
modified cy.5 or modified rh.13 or modified rh.37,  
respectively.  
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Inventions 42-64: Claims 16, 17, 46-58 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Subject-matter relating to the AAVs as defined in claim 16,  
i.e. 52/hu.19 or 52.1/hu.20 or 54.5/hu.23 .... or  
140.1/hu.51 or 140.2/hu.52, respectively.

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Inventions 65-69: Claims 20,21,46-58 (all partially)

Subject-matter relating to the AAVs as defined in claim 21,  
i.e. 128.1/hu.43 or 128.3/hu.44 or hu.46 or modified hu.46  
or 130.4/hu.48, respectively.

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Inventions 70-85: Claims 24,25,46-58 (all partially)

Subject-matter relating to the AAVs as defined in claim 25,  
i.e. 3.1/hu.9 or 16.8/hu.10 or 16.12/hu.11 .... or H-1/hu.1  
or hu.18 or 161.6/hu.61, respectively.

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Invention 86: Claims 28 and 29 (partially), 30-45 (all completely)

Subject-matter relating to hu.14/AAV9.

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Inventions 87-88: Claims 28,29,46-58 (all partially)

Subject-matter relating to the AAVs hu.31 or hu.32,  
respectively.

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## Information on patent family members

National Application No  
US2004/028817

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1310571	A	14-05-2003	CA	2406745 A1		13-05-2003
			CA	2465868 A1		22-05-2003
			EP	1310571 A2		14-05-2003
			EP	1456419 A2		15-09-2004
			JP	2003235562 A		26-08-2003
			WO	03042397 A2		22-05-2003
			US	2003138772 A1		24-07-2003
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US 2003138772	A1	24-07-2003	CA	2406745 A1		13-05-2003
			CA	2465868 A1		22-05-2003
			EP	1310571 A2		14-05-2003
			EP	1456419 A2		15-09-2004
			JP	2003235562 A		26-08-2003
			WO	03042397 A2		22-05-2003
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WO 03052052	A	26-06-2003	AU	2002359284 A1		30-06-2003
			CA	2469053 A1		26-06-2003
			EP	1463805 A2		06-10-2004
			WO	03052052 A2		26-06-2003
			US	2005014262 A1		20-01-2005
			US	6837318 B1		04-01-2005

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